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MAY 31 1967

CURRENT SERIAL RECORDS



WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE
and
COLORADO AGRICULTURAL EXPERIMENT STATION
STATE ENGINEER of COLORADO
and STATE ENGINEER of NEW MEXICO

Data included in this report were obtained by the agencies named above in cooperation with the Bureau of Reclamation, U.S. Forest Service, National Park Service, Corps of Engineers and other Federal, State, and private organizations.

AS OF
APR. 1, 1967

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season as they affect runoff will add to be an effective average. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data or reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

Listed below are water supply outlook reports based on Federal-State-Private Cooperative snow surveys. Those published by the Soil Conservation Service may be obtained from Soil Conservation Service, Room 507, Federal Building, 701 N. W. Glisan, Portland, Oregon 97209.

PUBLISHED BY SOIL CONSERVATION SERVICE

D. A. WILLIAMS, Administrator

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 507, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85205
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80202
Idaho	P. O. Box 38, Boise, Idaho 83701
Montana	P. O. Box 855, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4001 Federal Building, Salt Lake City, Utah 84111
Washington	840 Bon Marche Bldg., Spokane, Washington 99206
Wyoming	P. O. Box 340, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



**FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND WATER SUPPLY FORECASTS
for
COLORADO RIVER, PLATTE RIVER
ARKANSAS RIVER AND RIO GRANDE DRAINAGE BASINS
issued**

April 1, 1967

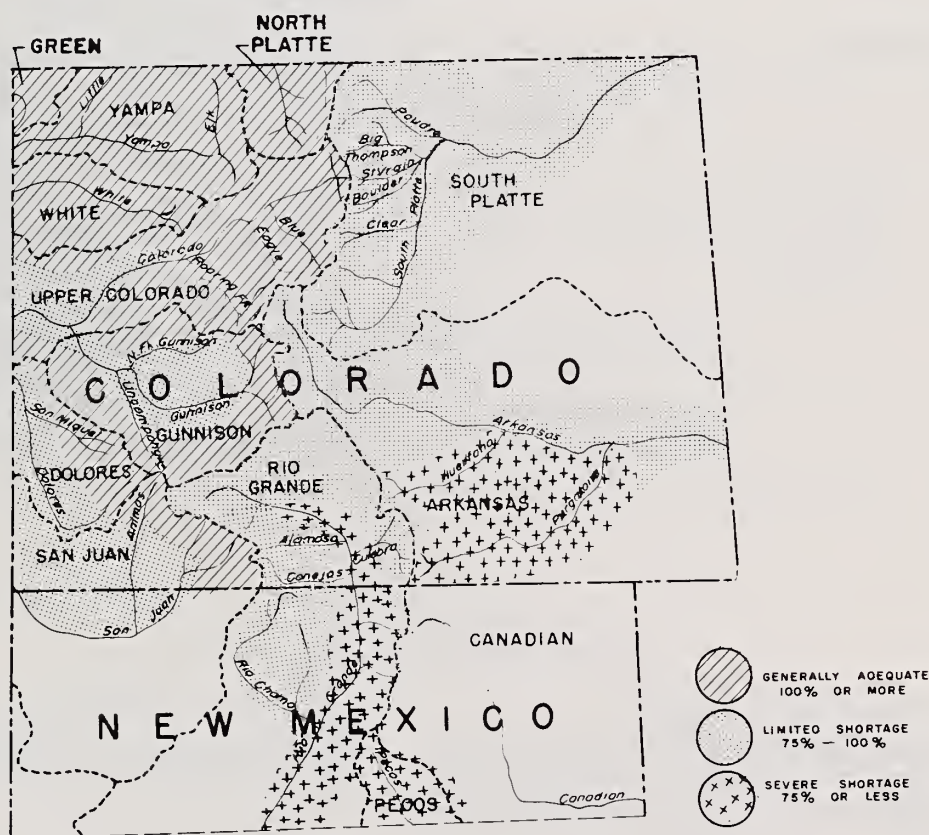
Report Prepared By

Jack N. Washichek, Snow Survey Supervisor
and
Donald W. McAndrew, Assistant Snow Survey Supervisor
Fort Collins, Colorado

United States Department of Agriculture
Soil Conservation Service
and
Colorado Agricultural Experiment Station
Fort Collins, Colorado

State Engineer of Colorado
Denver, Colorado
and
State Engineer of New Mexico
Santa Fe, New Mexico

WATER SUPPLY OUTLOOK



THE MAP ON THIS PAGE INDICATES THE MOST PROBABLE WATER SUPPLY AS OF THE DATE OF THIS REPORT. ESTIMATES ASSUME AVERAGE CONDITIONS OF SNOW FALL, PRECIPITATION AND OTHER FACTORS FROM THIS DATE TO THE END OF THE FORECAST PERIOD. AS THE SEASON PROGRESSES ACCURACY OF ESTIMATES IMPROVE. IN ADDITION TO EXPECTED STREAMFLOW, RESERVOIR STORAGE, SOIL MOISTURE IN IRRIGATED AREAS, AND OTHER FACTORS ARE CONSIDERED IN ESTIMATING WATER SUPPLY. ESTIMATES APPLY TO IRRIGATED AREAS ALONG THE MAIN STREAMS AND MAY NOT INDICATE CONDITIONS ON SMALL TRIBUTARIES.



WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO

as of

April 1, 1967



COLORADO -- March snowfall was below normal over all of Colorado. The southern portion of the state received only small amounts of snow during the month. Water supply outlook for the state is not bright. The North Platte, Yampa, White and Upper Colorado River Basin should have no serious shortages. The South Platte, and Arkansas Drainages will have deficient flows, but have good carry-over storage. The Rio Grande, Animas and San Juan will have deficient flows and slightly less than normal carry-over storage. Water shortages will occur in the entire southern half of the state unless spring and summer rainfall is above normal.

Valley soils are generally dry and crops may have to be irrigated up.

March was unseasonably warm and windy, which further reduced the mountain snowpack.



NEW MEXICO -- New Mexico and particularly the Rio Grande Basin and its tributaries will again be subjected to much below normal summer streamflow.

Snow pack is practically non-existent in New Mexico. Only 10 of the 22 snow courses indicate any snow at all and many of these have less than 5 inches of water.

Stored water is only 80% of the 1948-62 average, but will be an excellent supplement.

The weather during March was warm and windy which evaporated most of the snow that fell.

Forecasts are for less than half of the normal flows.

Pecos and Canadian Basins are expected to be dry this summer. The San Juan Basin is in slightly better shape, but will also experience some shortage.

Valley soils are dry.

Practically no additional snow can be expected to fall so summer rainfall will have to be above normal to provide for normal crops.

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WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS

WATERSHED I

SOUTH PLATTE RIVER WATERSHED

Describes water supply conditions in Fort Collins, Big Thompson, Longmont, Boulder Valley, Jefferson, Teller-Park, Douglas County, Morgan, Kiowa, West Arapahoe, West Adams, East Adams, Platte Valley, Southeast Weld, and West Greeley Soil Conservation Districts.

WATERSHED II

ARKANSAS RIVER WATERSHED

Describes water supply conditions in Lake County, Upper Arkansas, Fremont, Custer County Divide, Fountain Valley, Black Squirrel, Horse-Rush Creek, Central Colorado, Turkey Creek, Pueblo, Bessemer, Olney Boone, Cheyenne, Upper Huerfano, Stonewall, Spanish Peaks, Purgatoire, Branson Trinchera, Western Baca County, Southeastern Baca County, Two Buttes, Bent, Timpas, Northeast Prowers, Prowers, West Otero, East Otero, and Big Sandy Soil Conservation Districts.

WATERSHED III

RIO GRANDE WATERSHED (COLORADO)

Describes water supply conditions in Rio Grande, Center, Mosca Hooper, Mt. Blanca, Sanches, and Culebra Soil Conservation Districts.

WATERSHED IV

RIO GRANDE WATERSHED (NEW MEXICO)

Describes water supply conditions in Lower Cebolla, Abiquiu-Vallecitos, Eastern Taos, Lindrieth, Coyote-Canones, Espanola Valley, Pojoaque, Jemez, Santa Fe-Sandoval, Tijeras, Cuba, and Englewood Soil Conservation Districts.

WATERSHED V

DOLORES, SAN JUAN, AND ANIMAS RIVERS WATERSHED

Describes water supply conditions in San Miguel Basin, Dove Creek, Dolores, Mancos, LaPlata, Pine River, San Juan, and Glade Park Soil Conservation Districts.

WATERSHED VI

GUNNISON RIVER WATERSHED

Describes water supply conditions in Delta, Gunnison, Cimarron, Shavano, and Uncompahgre Soil Conservation Districts.

WATERSHED VII

COLORADO RIVER WATERSHED

Describes water supply conditions in DeBeque, Lower Grand Valley, Bookcliff, Eagle County, Middle Park, Glade Park, Upper Grand Valley, Plateau Valley, South Side, and Mt. Sopris Soil Conservation Districts.

WATERSHED VIII

YAMPA, WHITE AND NORTH PLATTE RIVERS WATERSHED

Describes water supply conditions in Yampa, Moffat, West Routt, East Routt, North Park, Upper White River, Lower White River, and Douglas Creek Soil Conservation Districts.

WATERSHED IX

LOWER SOUTH PLATTE RIVER WATERSHED

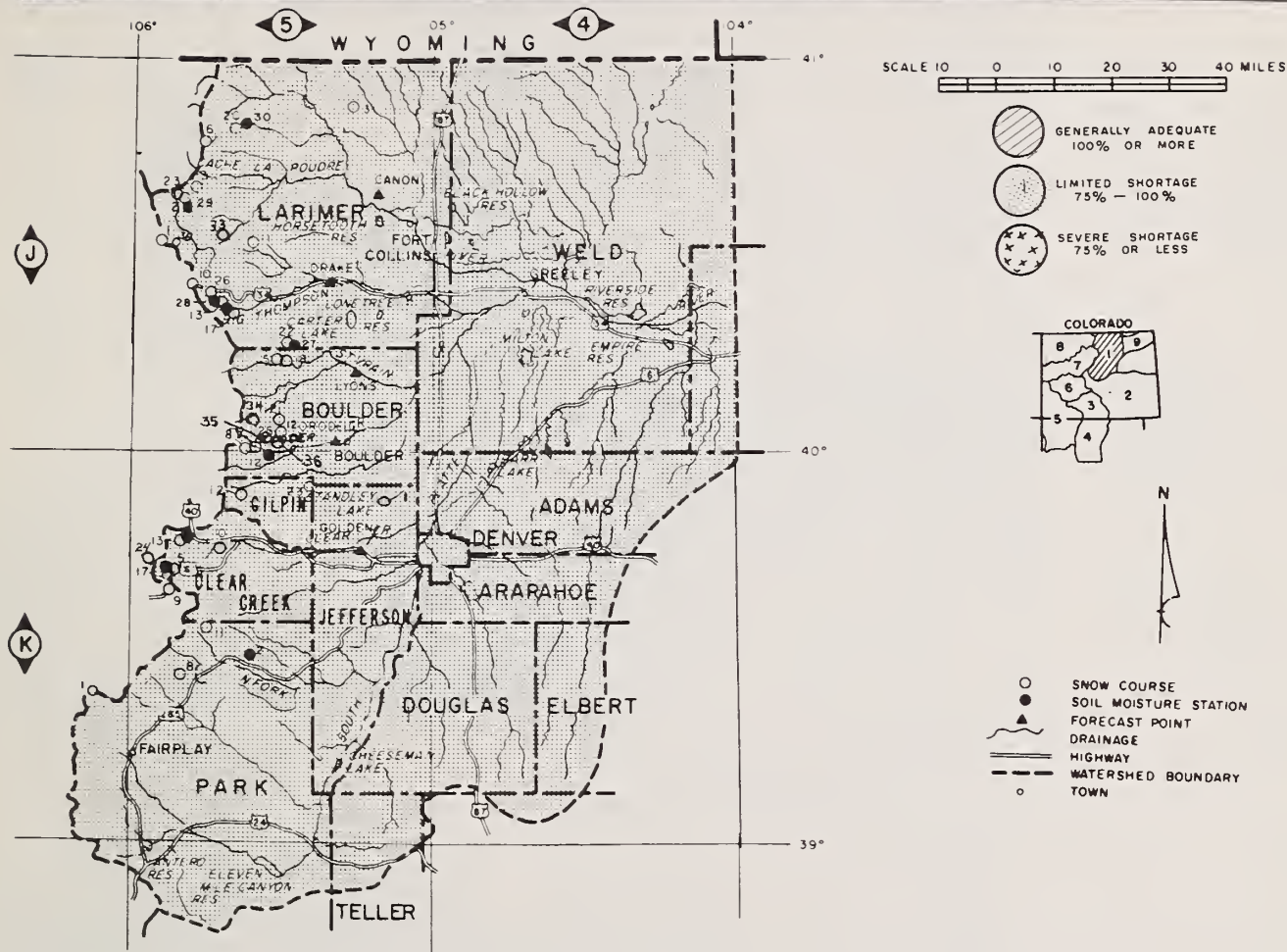
Describes water supply conditions in Sedgwick, South Platte, Haxton Peetz, Padroni, Morgan, Rock Creek and Yuma Soil Conservation Districts.

WATERSHED I

WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
SOUTH PLATTE RIVER WATERSHED IN COLORADO
as of

April 1, 1967

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



As of April 1st, the snow pack on the South Platte is only 75% of normal. The month was characterized by above seasonal temperatures and considerable wind. In many cases the snow pack decreased from last month. The lower elevation snow courses are generally much below normal, while the high courses held up a little better. Some of the snow pack now has a fine layer of dust visible, which will speed up the melting processes.

Carry-over reservoir storage is 108% of normal and will be an excellent supplement this summer. Most reservoirs contain less than last year at this time, but there still remains a good supply.

Soil moisture in the mountain area is nearly normal for this time of year. Some of the snow melt will be used to replace the voids in the soil.

Most areas are reporting poor soil moisture conditions in the plains area, however, a few areas got some rainfall during the month and are in a little better condition.

Forecasts are based on normal precipitation for the remainder of the year. If current trends continue, forecasts could drop again next month. All forecasts on the South Platte are in the 70 to 80% range, which is not critical. The high for the area is the Clear at Golden with a forecast of 86% of normal. The low is the Big Thompson and Cache La Poudre with 73%.

The mainstem of the South Platte will probably flow considerably less than normal.

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
Colorado

E. A. Nicholson, Area Conservationist,
Littleton, Colorado

"THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY"

SNOW

CURRENT INFORMATION

PAST RECORD

Snow Course	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
				Last Year	Avg. 48-62
South Platte River & Tributaries					
Baltimore	3/30	13	3.4	0.0	- -
Berthoud Falls	3/30	33	9.3	5.6	14.5*
Big South	4/1	1	0.5	0.0	2.9
Boulder Falls	3/29	30	10.0	6.0	15.1*
Cameron Pass	3/28	78	27.6	21.1	27.4
Chambers Lake	4/1	24	9.6	1.7	9.7
Copeland Lake	3/29	6	2.0	0.4	5.3*
Como	3/28	17	5.4	- -	- -
Deadman Hill	Est.	55	16.2	8.0	17.5
Deer Ridge	3/27	15	4.1	1.0	5.9*
Empire	3/30	22	7.7	2.6	8.1*
Geneva Park	3/30	12	3.0	0.5	4.1*
Grizzly Peak (B)	3/30	52	16.9	10.5	19.2
Hidden Valley	3/27	35	8.8	6.5	12.7
Hoosier Pass	3/29	35	10.8	5.3	14.2
Horseshoe	3/29	25	7.6	- -	- -
Hour Glass Lake	3/31	14	4.4	2.7	8.6
Jefferson Creek	3/28	27	7.8	3.0	10.4*
Lake Irene (B)	3/25	61	18.9	10.9	23.7
Long's Peak	4/2	33	11.1	5.5	12.5*
Lost Lake	4/1	32	12.1	4.6	13.0
Loveland Lift No. 1	3/31	69	23.5	15.7	- -
Loveland Pass	3/31	39	14.6	6.3	16.7
Mosquito	3/29	14	4.4	- -	- -
Pine Creek	3/29	1	0.2	0.2	- -
Red Feather	3/29	16	4.6	3.1	8.8*
Two Mile	3/27	52	13.6	9.5	16.4*
Trout Creek	3/29	9	2.6	- -	- -
University Camp	3/29	45	13.6	9.9	24.4
Ward	3/30	16	4.5	2.9	7.2*
Wild Basin	3/29	28	8.1	5.8	14.7

RESERVOIR STORAGE (1,000 Acre-Feet)

Reservoir	Usable Capacity	This Year	Last Year	15 Year Average 1948-62
Antero	33.0	15.0	15.9	13.4
Barr Lake	32.2	14.9	28.0	22.3
Black Hollow	8.0	3.3	4.0	3.2
Boyd Lake	58.0	28.5	41.2	18.1
Cache La Poudre	9.5	8.3	8.3	7.0
Carter Lake	108.9	89.5	107.7	74.2
Chambers Lake	8.8	2.9	6.4	2.5
Cheeseman	79.0	30.1	39.2	52.1
Cobb Lake	34.3	0	7.4	9.5
Eleven Mile	81.9	91.0	89.6	74.2
Fossil Creek	11.6	7.5	10.2	6.6
Gross	43.1	24.5	29.5	- -
Halligan	6.4	4.4	6.4	3.4
Horsetooth	143.5	103.5	112.9	77.7
Lake Loveland	13.6	4.0	8.4	6.3
Lone Tree	9.2	4.1	7.9	6.5
Mariano	5.4	5.2	5.6	3.2
Marshall	10.3	1.6	6.7	3.1
Marston	18.9	13.7	16.4	14.6
Milton	24.4	6.2	16.4	11.7
Standly	18.5	9.4	19.9	11.4
Terry Lake	8.2	4.4	5.9	4.8
Union	12.7	6.4	12.7	7.8
Windsor	18.6	5.5	13.0	10.3

MEASURED FIRST OF MONTH

STREAMFLOW FORECAST (1,000 Acre-Feet)

Stream and Station	Forecast Period April - Sept.	This Year % of Avg.	Avg. 1948-1962
Big Thompson at Drake (2)	80	73	110
Boulder at Orodell	45	83	54
Cache La Poudre at Canon Mouth (1)	180	73	246
Clear Creek at Golden (3)	115	86	134
Saint Vrain at Lyons	60	75	80

SOIL MOISTURE

Station	Date of Survey	Capacity (Inches)	This Year	Last Year	Avg. All Data
Alpine Camp	3/20	6.9	3.1	3.4	3.4
Beaver Dam	3/20	7.3	3.1	2.8	3.3
Clear Creek	3/31	9.5	5.1	5.4	5.0
Feather	3/20	10.1	3.7	4.0	4.1
Guard Station	4/2	6.9	5.2	3.9	3.4
Hoop Creek	3/31	4.9	3.0	3.4	2.5
Hoosier Pass	3/29	7.8	4.4	4.4	4.2
Kenosha Pass	3/28	4.4	2.7	2.3	2.0
Laramie Road	4/1	12.4	6.4	8.7	6.7
Two Mile	3/20	9.1	3.9	4.1	5.0

ALL PROFILES 4 FEET DEEP

RETURN IF NOT DELIVERED

UNITED STATES

DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Snow Survey
Colorado State University
Fort Collins, Colorado

OFFICIAL BUSINESS

- (1) Observed flow minus diversions from Michigan, Colorado and Laramie Rivers, plus diversions for irrigation and municipal use above station.
- (2) Observed flow plus by-pass to power plants.
- (3) Observed flow minus diversions through Jones Pass.

NOTE: * - 1948-62 (adjusted average)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

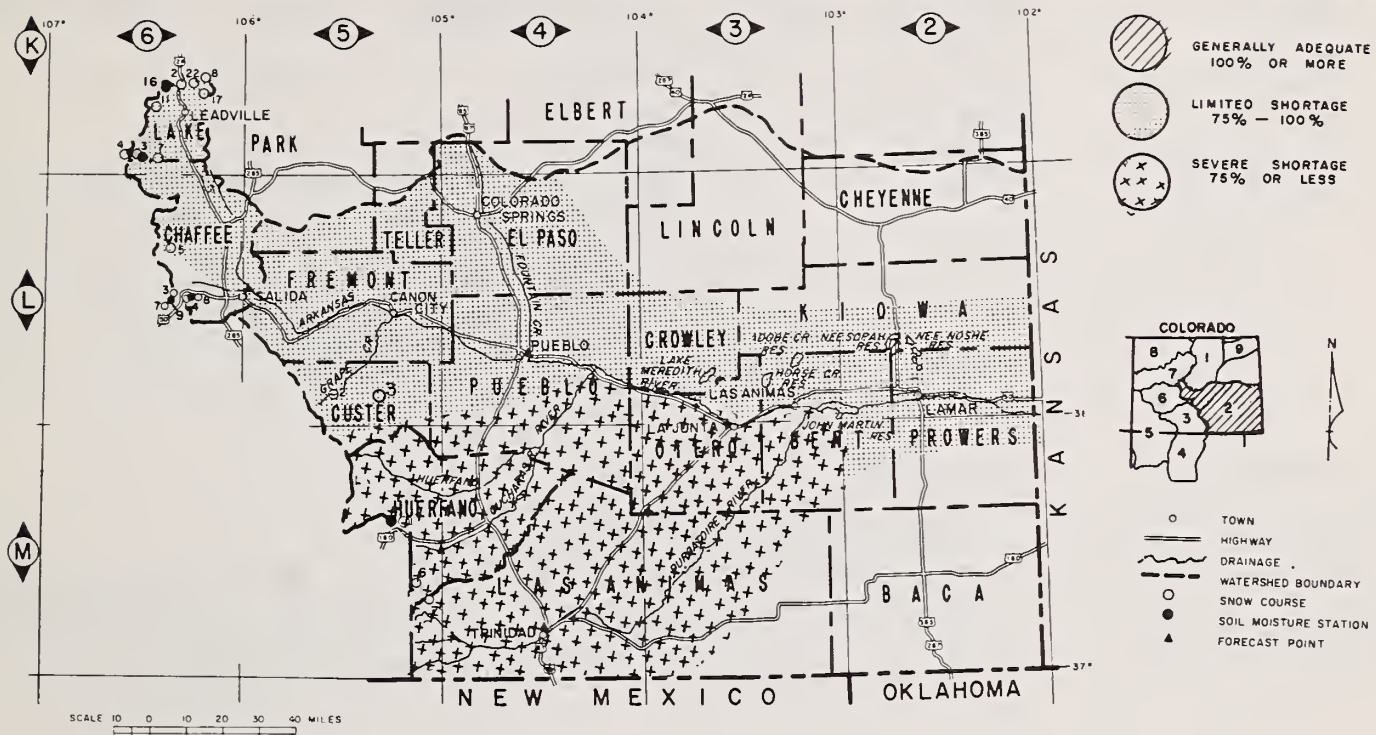
This Report Prepared by Jack N. Washichek and Donald W. McAndrew, Soil Conservation Service, Colorado State University, Fort Collins, Colo.

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WATERSHED II

WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
ARKANSAS RIVER WATERSHED IN COLORADO
as of
April 1, 1967

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



The snow pack on the Arkansas Drainage and its tributaries is only 68% of the 15-year normal. March increases were much below normal. Warm temperatures and high winds have also reduced the snow pack through melt and evaporation. The snow pack on LaVeta Pass is now a minimum of record. Snow pack only increased during the month on a few snow courses in the drainage.

One bright spot in the water supply outlook is the carry-over storage. Reservoirs in the valley, not counting John Martin, contain 130% of normal storage. This will be an excellent supply for farmers under an irrigation system. John Martin contains 198,700 acre-feet compared to a normal carry-over of only 85,000 acre-feet.

Mountain soils are wetter than last month possibly reflecting some melting even at the higher elevations. Valley soil moisture is generally poor. Early summer rains are badly needed.

Forecasts indicate some shortages could occur this summer, especially on the tributary streams to the south.

The mainstem should flow about 70% of normal, if normal precipitation occurs for the remainder of the year. The Purgatoire will flow only 40% of normal and the Cucharas a low 50%.

Conservation of water will be a necessity this summer.

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
Colorado

Will D. McCorkle, Area Conservationist,
La Junta, Colorado

"THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY"

SNOW

CURRENT INFORMATION

PAST RECORD

Snow Course	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
				Last Year	Avg. 48-62
Arkansas River					
Bigelow Divide	3/29	11	3.6	2.3	- -
Blue Lakes	Destroyed			0.0	- -
Bourbon	3/29	11	3.2	3.2	7.8*
Cooper Hill	3/28	37	7.9	6.5	- -
Cucharas Pass	3/29	6	1.8	3.4	- -
East Fork	3/31	29	8.8	5.3	10.7*
Four Mile Park	3/30	2	0.6	1.0	4.9
Fremont Pass	3/31	51	16.0	9.7	17.7
Garfield	3/30	29	10.3	6.1	- -
LaVeta Pass (B)	3/29	9	1.9	5.6	8.3
Monarch Pass	3/30	37	11.9	7.7	19.6
St. Elmo	3/30	34	9.5	- -	12.6*
Tennessee Pass	3/30	36	10.1	6.0	10.9
Tomichi	3/30	25	7.6	6.9	- -
Twin Lakes Tunnel	3/30	31	8.5	6.8	11.6
Westcliffe	3/29	9	3.7	0.0	5.2*

RESERVOIR STORAGE (1,000 Acre-Feet)

Reservoir	Usable Capacity	This Year	Last Year	15 Year Average 1948-62
Adobe Creek	61.6	27.7	56.0	13.7
Clear Creek	11.4	7.1	11.2	6.2
Cucharas	40.0	0	0	5.5
Great Plains	150.0	74.7	128.6	46.5
Horse Creek	26.9	8.2	22.5	5.9
John Martin	366.6	198.7	374.5	85.0
Meredith	41.9	6.2	25.7	11.6
Model	15.0	1.5	3.7	2.5
Sugar Loaf	17.4	8.8	14.4	7.5
Twin Lakes	57.9	17.9	52.7	19.5

MEASURED FIRST OF MONTH

STREAMFLOW FORECAST (1,000 Acre-Feet)

Stream and Station	Forecast Period April - Sept.	This Year % of Avg.	Avg. 1948-1962
Arkansas at Pueblo (4)	220	68	323
Arkansas at Salida (4)	235	68	345
Cucharas near LaVeta	7	50	14
Purgatoire at Trinidad	18	40	45

SOIL MOISTURE

Station	Date of Survey	Capacity (Inches)	This Year	Last Year	Avg. All Data
Garfield	3/30	6.7	4.4	5.3	3.2
King	3/30	3.3	2.5	2.6	1.7
LaVeta Pass	3/31	11.9	11.3	NS	8.3
Leadville	3/31	7.8	3.7	5.0	3.5
Twin Lakes Tunnel	3/31	4.5	3.0	3.2	2.4

ALL PROFILES 4 FEET DEEP

(4) Observed flow plus change in Clear Creek, Twin Lakes, and Sugar Loaf Reservoirs minus diversions through Busk-Ivanhoe and Twin Lake Tunnels and Ewing, Fremont Pass, Wurtz and Columbine Ditches.

NOTE: * - 1948-62 (adjusted averages)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by Jack N. Washichek and Donald W. McAndrew, Soil Conservation Service, Colorado State University, Fort Collins, Colo.

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UNITED STATES
DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Snow Survey
Colorado State University
Fort Collins, Colorado

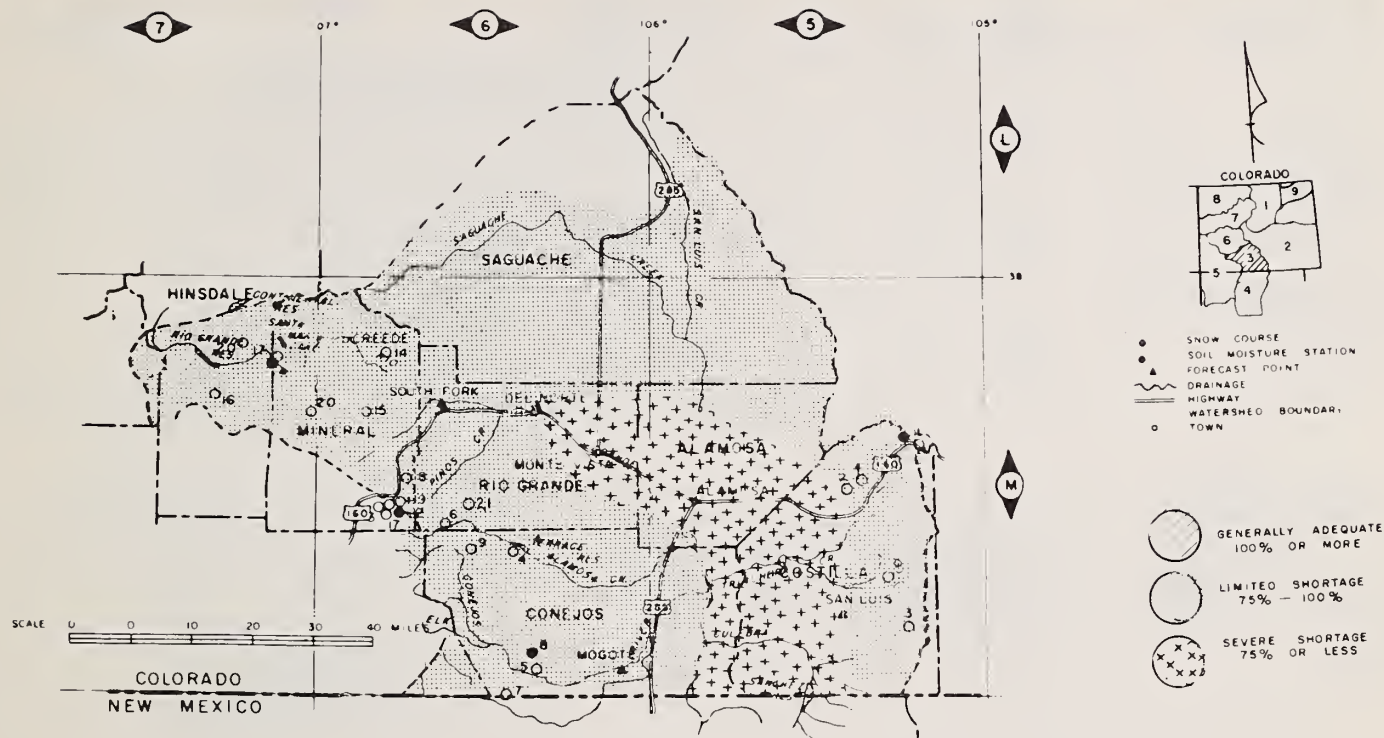
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WATERSHED III

WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
UPPER RIO GRANDE WATERSHED IN COLORADO
as of
April 1, 1967

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



The water supply outlook for the coming irrigation season in the San Luis Valley is gloomy.

High winds, unseasonably warm temperatures, and far below normal precipitation depleted the mountain snow pack markedly. Many areas in the watershed that are normally covered by one to three feet of snow are completely bare now. The snow pack up to 10,000 feet along the Rio Grande Basin is practically non-existent. Many snow courses are near a minimum of record, comparable to 1953 and 1955. The high elevation snow pack along the Continental Divide is somewhat better. Here the winter's snow pack ranges from 80 to 100% of average. After starting out the winter season with abundant snowfall the snow pack has dwindled to only 67% of average along the Rio Grande mainstem, 68% on the Alamosa, 88% on the Conejos and a meager 31% of average for the streams originating in the Sangre De Cristo Range.

The streamflow forecasts issued for the coming growing season reflect the snow pack deficiencies.

The Rio Grande is expected to flow 300,000 acre-feet at Del Norte for the April - September period. The Conejos and Alamosa Rivers are forecast at 67 and 71% respectively. Culebra Creek is expected to flow only 10,000 acre-feet which is less than one-half of average.

It is hoped that the near normal Continental Divide snow pack will sustain the runoff through mid-July. Most of the snow pack remaining at the medium elevations is covered with dust, deposited by the high winds, and will ripen and runoff much earlier than normal.

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
Colorado

R. K. Griffin, Area Conservationist,
Durango, Colorado

"THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY"

SNOW

SNOW		CURRENT INFORMATION			PAST RECORD	
Snow Course	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)		
				Last Year	Avg. 48-62	
<u>Rio Grande in Colorado</u>						
Cochetopa Pass	3/30	0	0.0	3.1	5.5*	
Hiway	3/29	66	22.3	25.6	26.0*	
Lake Humphreys	3/27	6	1.5	5.2	5.7*	
Pass Creek	3/30	23	5.7	11.4	11.0*	
Pool Table	3/27	9	2.6	4.4	6.5*	
Porcupine	3/29	27	7.9	5.3	11.4*	
Red Mountain Pass (B)	3/30	70	21.8	25.7	33.3*	
Santa Maria	3/30	5	0.7	3.0	4.7	
Upper Rio Grande	3/31	8	1.8	6.8	8.0	
Wolf Creek Pass	3/30	71	24.8	26.3	30.6	
Wolf Creek Summit (B)	3/29	77	26.8	33.5	30.0	
<u>Alamosa River</u>						
Silver Lakes	3/28	9	2.9	3.2	6.3	
Summitville	3/31	58	15.4	19.2	20.6	
<u>Conejos River</u>						
Cumbres Pass	3/31	57	22.5	21.4	19.0	
Platoro	3/28	47	14.5	16.5	18.8*	
River Springs	3/27	9	2.6	1.7	6.7	
<u>Sangre De Cristo Range</u>						
Blue Lakes (B)	-----	--	----	0.0	- -	
Cucharas Pass (B)	3/29	6	1.8	3.4	- -	
Culebra	3/30	14	3.9	10.3	10.0	
LaVeta Pass	3/29	9	1.9	5.6	8.3	

SOIL MOISTURE

Station	Date of Survey	Capacity (Inches)	This Year	Last Year	Avg. All Data
Alberta Park	3/31	8.2	5.7	7.5	4.5
Bristol View	3/29	6.1	2.8	6.1	3.6
LaVeta Pass	3/31	11.9	11.9	NS	8.3
Mogote	3/31	10.7	7.4	NS	5.9

ALL PROFILES 4 FEET DEEP

RESERVOIR STORAGE (1,000 Acre-Feet)

Reservoir	Usable Capacity	This Year	Last Year	15 Year Average 1948-62
Continental	26.7	5.2	9.4	6.1
Platoro	60.0	3.0	17.3	4.6
Rio Grande	45.8	10.2	37.4	14.3
Sanchez	103.2	3.6	15.2	10.7
Santa Maria	45.0	9.9	18.2	7.1
Terrace	17.7	6.0	10.8	3.3

MEASURED FIRST OF MONTH

STREAMFLOW FORECAST (1,000 Acre-Feet)

Stream and Station	Forecast Period April - Sept.	This Year % of Avg.	Avg. 1948-1962
Alamosa abv. Terrace	48	71	68
Conejos nr Mogote	132	67	196
Culebra at San Luis (6)	10	48	21
Rio Grande at 30 Mile Bridge (5)	90	68	132
Rio Grande nr Del Norte (5)	300	61	492
South Fork at South Fork	95	78	122

- (5) Observed flow plus change in storage in Santa Maria, Rio Grande and Continental Reservoir.
 (6) Observed flow plus changes in storage in Sanchez Reservoir.

NOTE: * - 1948-62 (adjusted averages)
 NS - NO SURVEY
 (A) - AIR OBSERVED
 (B) - ON ADJACENT DRAINAGE

This Report Prepared by Jack N. Washichek and Donald W. McAndrew, Soil Conservation Service, Colorado State University, Fort Collins, Colo.

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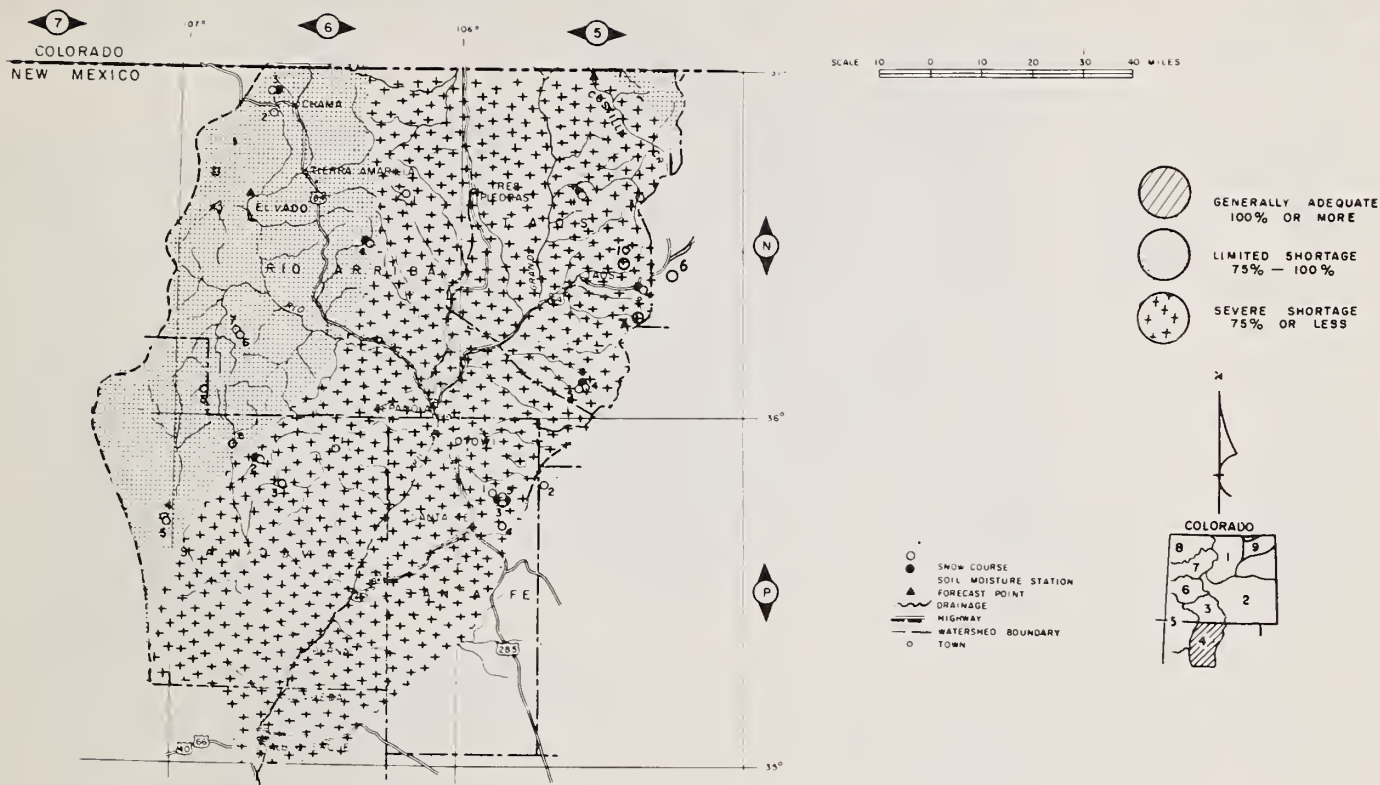
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RIO GRANDE WATERSHED IN NEW MEXICO

as of

April 1, 1967

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



The water supply outlook for New Mexico dictates that water conservation practices be rigidly followed this summer. Water users depending on direct flows will receive less than one-half a normal supply. Late season supplies will be practically non-existent.

April 1st snow surveys reveal that one-half of the snow courses located in New Mexico haven't any snow at all. Many of the snow courses are near a minimum of record comparable to 1951, 1953 and 1956. The snow pack in Northern New Mexico is only 31% of the 1948-62 average. The situation in Colorado is also bleak. Here, the snow pack was subjected to unseasonably high temperatures, high wind and low precipitation. The snow pack at the headwaters area of the Rio Grande has dwindled to 67% of normal.

Streamflow forecasts reflect the dismal snow picture. The Rio Grande mainstem is forecast to flow 280,000 acre-feet at Otowi Bridge for the March through July period. This represents only 46% of average. The Rio Grande is expected to flow only one-fourth of normal at the San Marcial gaging station. Forecasts indicate that the Pecos will flow 20,000 acre-feet which is 38% of average.

Water held in storage in major reservoirs is approximately 80% of average for this date. This water will be of some assistance to those users under one of the systems.

Direct users located in the smaller tributaries to the Rio Grande should plan on less than 50% of the volume normally delivered along with a short water season.

Issued By: Soil Conservation Service

Einar L. Roget, State Conservationist,
Albuquerque, New Mexico

Walter B. Rumsey, Area Conservationist,
Santa Fe, New Mexico

"THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY"

SNOW Snow Course	CURRENT INFORMATION			PAST RECORD	
	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
				Last Year	Avg. 48-62
Rio Grande (Colorado)					
Culebra	3/30	14	3.7	10.3	10.0
Cumbres Pass	3/31	57	22.5	21.4	19.0
LaVeta Pass	3/29	9	1.9	5.6	8.3
Platoro	3/28	47	14.5	16.5	18.8*
River Springs	3/27	9	2.6	1.7	6.7
Santa Maria	3/31	5	0.7	3.0	4.7
Silver Lakes	3/31	9	2.9	3.2	6.3
Summitville	3/30	58	15.4	19.2	20.6
Upper Rio Grande	3/31	8	1.8	6.8	8.0
Wolf Creek Pass	3/30	71	24.8	26.3	30.6
Aspen Grove (New Mexico)	3/31	1	0.5	2.0	3.2
Bateman	3/22	30	8.7	10.2	11.6
Big Tesuque	3/31	0	0	2.1	4.3
Blue Bird Mesa	3/31	0	0	2.3	-
Capuline Peak	3/31	0	0	0.3	-
Chama Divide	3/31	0	0	0.0	1.9
Chamita	3/30	5	1.8	5.9	9.0
Cordova	3/29	22	6.8	8.3	10.8
Elk Cabin	3/30	0	0	1.3	1.8
Fenton Hill	3/30	0	0	2.6	2.9*
Hematite Park	3/28	0	0	3.4	4.1
Mora View	3/27	0	0	0.0	-
Pajarito Peak	3/30	0	0	0.0	-
Panchuela	3/30	0	0	0.7	1.6
Payrole	3/29	9	2.6	5.5	8.3
Quemazon	3/30	9	2.0	6.4	7.9*
Red River	3/28	6	1.4	4.7	6.3
Rio En Medio	3/31	12	3.7	8.9	5.9*
Sandavol	3/30	0	0	4.0	-
Taos Canyon	3/29	1	0.2	1.1	4.3
Tres Ritos	3/27	0	0	1.0	4.5
Twinning	3/29	16	5.0	11.1	-

RESERVOIR STORAGE (1,000 Acre-Feet)

Reservoir	Usable Capacity	This Year	Last Year	15 Year Average 1948-62
Alamogordo	122.1	70.9	26.8	67.2
Caballo	344.0	82.7	90.1	104.7
Conchas	280.3	187.1	258.1	237.6
Elephant Butte	2206.8	275.1	495.8	360.0
El Vado	194.5	1.3	2.8	16.9
McMillan- Avalon	37.0	28.4	25.8	18.3
Red Bluff(Tex)	307.0	209.1	51.7	67.1

MEASURED FIRST OF MONTH

STREAMFLOW FORECAST(1,000 Acre-Feet)

Stream and Station	Forecast	This Year	Avg.
	as Indicated	% of Avg.	1948 - 62
Costilla at Costilla (8)	11 AS	44	25
Pecos at Pecos	20 AS	38	53
Rio Chama nr La Puente	105 AS	49	214
Rio Grande at Otowi (7)	280 MJ	46	609
Rio Grande at San Marcial (7)	100 MJ	24	424
Rio Hondo nr Valdez	9 AS	50	18
Red River at Questa	9 AJ	36	25

The Forecast of the Rio Grande at San Marcial is
14 % of the Average used by the Elephant
Butte Irrigation District.

A-S is April through September.

A-J is April through July.

M-J is March through July.

(7) Observed flow plus changes in storage in El
Vado and Abiquiu Reservoirs.

(8) Observed flow plus changes in storage in
Costilla Reservoir.

NOTE: * - 1948-62 (adjusted averages)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by Jack N. Washichek and
Donald W. McAndrew, Soil Conservation Service,
Colorado State University, Fort Collins, Colo.

SOIL MOISTURE

Station	Date of Survey	Capacity (Inches)	This Year	Last Year	Avg. All Data
Colorado					
Alberta Park	3/31	8.2	5.7	7.5	4.5
Bristol View	3/29	6.1	2.9	6.1	3.6
Mogote	3/31	10.7	NS	NS	5.9
New Mexico					
Aqua Piedra	3/29	7.2	5.1	5.3	3.7
Bateman	3/22	6.7	4.5	4.8	2.6
Big Tesuque	3/31	3.7	3.3	1.9	1.7
Chamita	3/30	8.0	8.0	8.0	3.7
Fenton Hill	NS	6.5		6.5	4.5
Red Summit	3/28	4.8	1.5	1.5	2.1
Rio En Medio	3/31	3.5	1.0	1.6	1.1
Taos Canyon	3/29	3.3	2.5	2.5	2.3

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DEPARTMENT OF AGRICULTURE

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Colorado State University
Fort Collins, Colorado

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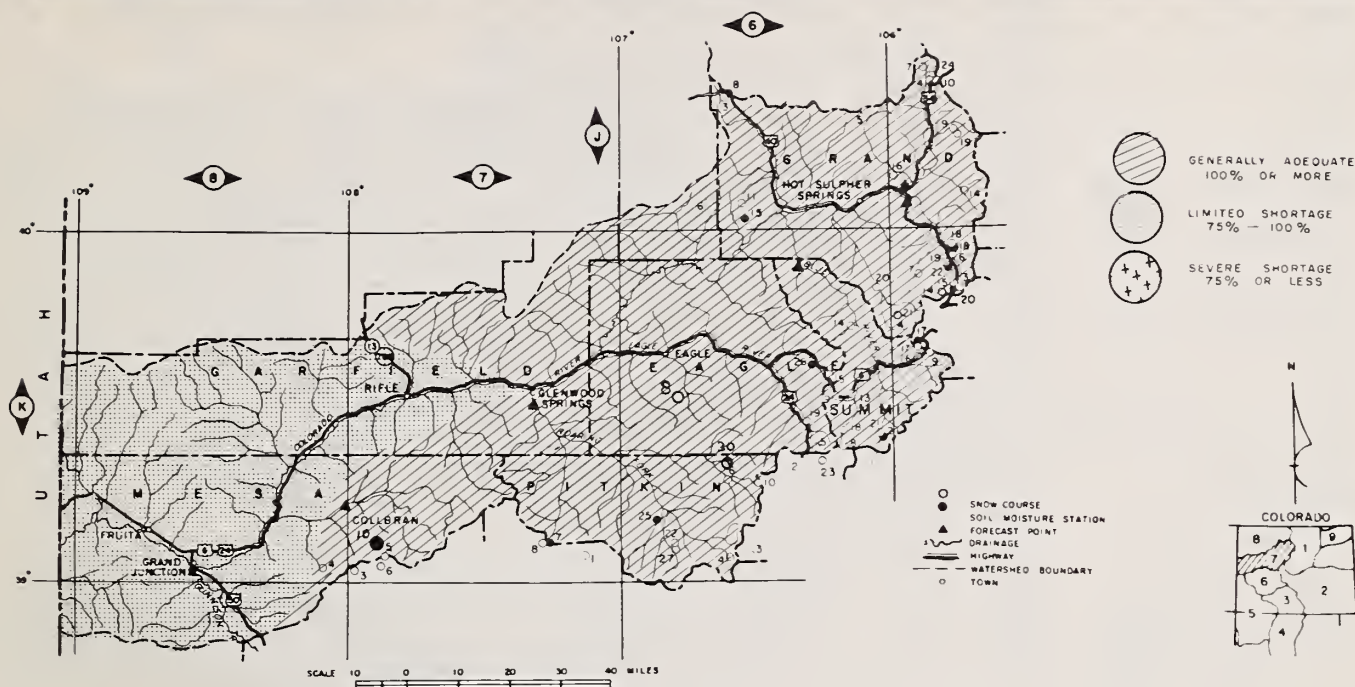
ALL PROFILES 4 FEET DEEP

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WATERSHED VII

WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
COLORADO RIVER WATERSHED IN COLORADO
as of
April 1, 1967

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



The snow pack on the Colorado mainstem stands at 85% of the 15-year average. The March increase was slightly less than normal. Snow on the Roaring Fork and Plateau Drainages is near the 90% level. The snow pack at the lower elevations shows signs of deterioration, this is generally due to the extremely warm temperatures during the month. Snowfall held up well on the Grand Mesa. Streams originating here should have a near normal water supply. The headwaters area of the Colorado also is in relatively good condition. Some of the high elevation areas of the Roaring Fork Drainage indicate an above normal snow pack.

Soil moisture conditions in the mountains is slightly better than last month and indicate that some melting has already occurred. Overall the soil moisture conditions are nearly normal.

The valley soil moisture is in good condition in the upper reaches of the Colorado, but become worse toward the west. The lower areas of the Colorado are reporting poor soil moisture.

Most of the reservoirs in the Upper Colorado Basin are storage for transcontinental diversions and do not reflect any supplement for the Colorado.

Forecasts are based on normal precipitation for the remainder of the year, so could change from time to time. Current forecasts indicate that water users should have near normal supplies this summer. The Colorado at Glenwood Springs should flow about 90% of normal. The Roaring Fork and Williams Fork about 85% and the Blue River about 80%.

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
Colorado

D. B. Beach, Area Conservationist,
Grand Junction, Colorado

R. L. Porter, Area Conservationist,
Glenwood Springs, Colorado

"THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY"

SNOW

Snow Course	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
				Last Year	Avg. 48-62
<u>Colorado River</u>					
Arrow	3/30	32	12.4	7.5	12.5
Berthoud Pass	3/30	43	14.3	9.8	15.7
Berthoud Summit	3/30	55	17.7	13.7	20.4*
Blue River	3/30	16	4.1	1.5	9.7*
Cooper Hill	3/28	37	7.9	6.5	- -
Fiddlers Gulch	3/31	46	11.6	6.6	17.9
Fremont Pass	3/31	51	16.0	9.7	17.7
Frisco	3/30	22	6.2	3.3	- -
Glen Mar Ranch	3/29	20	6.9	4.7	8.7
Gore Pass	3/30	30	8.6	4.3	10.9*
Granby	3/29	25	7.4	4.1	7.9*
Grand Lake	3/27	32	9.1	5.9	9.0*
Grizzly Peak	3/30	52	16.9	10.5	19.2
Hoosier Pass (B)	3/29	35	10.8	5.3	14.2
Jones Pass	3/29	43	14.6	9.5	15.3*
Lake Irene	3/25	61	18.9	10.9	23.7
Lapland	3/29	27	9.3	4.1	12.0
Lulu	3/30	61	18.5	10.6	18.2
Lynx Pass	3/30	39	12.3	6.9	13.0
McKinzie Gulch	3/27	9	2.2	3.4	- -
Middle Fork Campground	3/29	26	7.1	6.4	9.8
Milner	3/25	44	13.7	8.3	12.4*
Monarch Lake				3.8	11.0
North Inlet to Grand Lake	3/28	31	9.7	4.6	10.0
Pando	3/31	27	9.3	6.6	11.6*
Phantom Valley	3/25	38	12.4	5.6	11.5
Ranch Creek	3/30	32	8.0	5.6	9.8*
Shrine Pass	3/30	55	17.1	10.3	18.7
Snake River	3/30	18	4.9	2.4	9.2*
Summit Ranch	3/30	20	4.4	3.8	8.8*
Tennessee Pass	3/30	36	10.1	6.0	10.9
Vail Pass	3/30	48	14.9	7.5	19.2*
Vasquez Creek	3/30	40	12.5	7.8	13.4
Willow Creek Pass	3/28	45	15.3	8.4	14.3
<u>Roaring Fork River</u>					
Aspen	3/29	49	18.8	7.5	- -
Independence Pass Tunnel	3/29	44	15.3	11.5	18.7
Ivanhoe	3/30	57	19.2	12.0	18.8
Kilm	3/30	36	9.8	7.4	- -
Lift	3/29	50	19.3	12.9	18.8*
McClure Pass	3/26	41	13.9	10.4	16.4*
Nest	3/30	8	2.8	3.0	6.3
North Lost Trail	3/26	36	12.5	9.5	15.7
<u>Plateau Creek</u>					
Alexander Lake (B)	3/31	65	23.2	20.5	23.8
Mesa Lakes	3/29	46	16.6	14.3	18.5
Park Reservoir (B)	3/28	70	24.4	21.3	27.1
Trickle Divide	3/28	67	24.1	23.7	28.9

SOIL MOISTURE

Station	Date of Survey	Capacity (Inches)	This Year	Last Year	Avg. All Data
Berthoud Pass	3/28	3.9	2.7	3.4	2.5
Blue River	3/30	4.2	2.4	3.0	2.4
Gore	3/30	4.9	2.3	3.5	2.6
Grand Mesa	3/28	12.5	7.8	12.5	- -
Muddy Pass	3/30	11.1	6.2	7.7	6.4
Placita	4/3	9.3	8.6	8.1	6.3
Ranch Creek	3/30	8.7	5.2	5.9	5.2
Vail	3/31	12.3	6.0	8.0	8.4
Vasquez Siphon	3/29	11.0	5.8	7.5	7.3

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UNITED STATES

DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

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RESERVOIR STORAGE (1,000 Acre-Feet)

Reservoir	Usable Capacity	This Year	Last Year	15 Year Average 1948-62
Granby	465.5	59.4	216.1	87.5
Green Mt.	146.9	47.0	63.4	58.9
Vega	32.9	7.5	21.8	- -
Williams Fork	96.8	3.1	13.6	- -
Dillon	254.0	210.7	243.6	- -

MEASURED FIRST OF MONTH

STREAMFLOW FORECAST (1,000 Acre-Feet)

Stream and Station	Forecast Period April - Sept.	This Year % of Avg.	Avg. 1948-1962
Blue River abv Green Mt. (10)	220	80	274
Colo. River nr Granby (11)	230	99	233
Colo. River abv Glenwood Springs (12)	1390	89	1556
Roaring Fork at Glenwood Springs (14)	650	85	762
Williams Fork nr Marshall (15)	65	84	77
Willow abv Willow Creek	45	94	48
Colo. nr Cameo (12)	2080	94	2213

- (10) Observed flow plus change in storage in Dillon Reservoir.
 (11) Observed flow diversions by Adams Tunnel and Grand River Ditch plus change in storage in Granby Reservoir.
 (12) Observed flow plus the changes as indicated in (11) plus Moffat Ditch.
 (14) Observed flow plus diversion through Twin Lakes Tunnel.
 (15) Observed flow plus diversions through Jones Pass Tunnel.

NOTE: * - 1948-62 (adjusted averages)
 NS - NO SURVEY
 (A) - AIR OBSERVED
 (B) - ON ADJACENT DRAINAGE

This Report Prepared by Jack N. Washchek and Donald W. McAndrew, Soil Conservation Service, Soil Conservation Service, Fort Collins, Colo.

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GUNNISON RIVER WATERSHED IN COLORADO

as of

April 1, 1967

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



April 1st snow surveys reveal that much of the headwaters area of the Gunnison River decreased since the March 1 measurements. This situation is most unusual. Elevations of 9,000 to 10,000 feet normally receive 20 - 30 inches of snow during March. This year snow courses in this elevation band ranged from increases of less than one inch to decreases of 4 inches of water content. This situation carried through for the Uncompahgre Drainage where some areas report only 50% of the normal snow pack. One bright spot is the Grand Mesa area. The Grand Mesa along with the Upper Colorado River area are the only spots in the state indicating a near normal snow pack this month.

March snowfall in the Crested Butte, Monarch Pass, and Lake City areas was practically non-existent. The same situation exists for the Uncompahgre River in the Red Mountain area.

The streamflow forecasts issued in this report reflect the deficient snowfall last month. The Gunnison River is expected to flow 900,000 acre-feet at Grand Junction. This represents only 69% of average for the April - September period. The Uncompahgre is forecast at 81%. Surface Creek and other tributaries originating on the Grand Mesa should flow near 90% this year.

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
Colorado

Dearl Beach, Area Conservationist,
Grand Junction, Colorado

"THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY"

SNOW		CURRENT INFORMATION			PAST RECORD	
Snow Course	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)		
				Last Year	Avg. 48-62	
<u>Gunnison River</u>						
Alexander Lakes	3/31	65	23.2	20.5	23.8	
Black Mesa	----	--	----	- -	- -	
Blue Mesa	3/30	9	1.2	4.9	9.8*	
Butte	3/24	47	14.9	11.2	- -	
Cochetopa Pass	3/30	0	0.0	3.1	5.5*	
Crested Butte	3/23	34	12.0	8.5	15.0	
Keystone	3/24	57	20.5	13.9	- -	
Lake City	3/23	17	3.5	4.0	8.6	
Long Gulch	----	--	----	- -	- -	
Mesa Lakes (B)	3/24	46	16.6	14.3	18.5	
Monarch Pass (B)	3/30	37	11.9	7.7	19.6	
McClure Pass	3/26	41	13.9	10.4	16.4*	
Mineral Creek (B)	3/30	39	12.5	11.9	15.7*	
North Lost Trail (B)	3/26	36	12.5	9.5	15.7	
Park Cone	3/28	36	11.0	6.9	12.5	
Park Reservoir	3/28	70	24.4	21.3	27.1	
Porphyry Creek	3/30	40	12.0	10.5	18.0	
Tomichi	3/30	25	7.6	6.9	- -	
Trickle Divide (B)	3/28	67	24.1	23.7	28.9	
<u>Uncompahgre River</u>						
Ironton Park	3/30	23	6.7	5.2	13.4	
Lizzard Head	3/30	44	13.2	14.4	18.3	
Lone Cone	3/30	32	10.5	12.8	- -	
Red Mountain Pass (B)	3/30	70	21.8	25.7	33.3*	
Telluride	3/29	4	1.6	3.7	6.7	
Trout Lake	3/29	34	11.2	10.8	13.6*	

RESERVOIR STORAGE (1,000 Acre-Feet)

Reservoir	Usable Capacity	This Year	Last Year	15 Year Average 1948-62
Taylor	106.2	45.5	82.0	58.3

MEASURED FIRST OF MONTH

STREAMFLOW FORECAST (1,000 Acre-Feet)

Stream and Station	Forecast Period	This Year	Avg. 1948-1962
	April - Sept.	% of Avg.	
Gunnison nr Grand Jct.	900	69	1305
Surface Creek nr Cedaridge	15	88	17
Uncompahgre at Colona	112	81	139

NOTE: * - 1948-62 (adjusted averages)
 NS - NO SURVEY
 (A) - AIR OBSERVED
 (B) - ON ADJACENT DRAINAGE

SOIL MOISTURE

Station	Date of Survey	Capacity (Inches)	This Year	Last Year	Avg. All Data
Grand Mesa	3/28	12.5	7.8	12.5	--
King	3/30	3.3	2.5	2.6	1.7
Mineral Creek	4/3	5.7	4.1	NS	3.5
Placita	4/3	9.3	8.6	8.1	6.3

ALL PROFILES 4 FEET DEEP

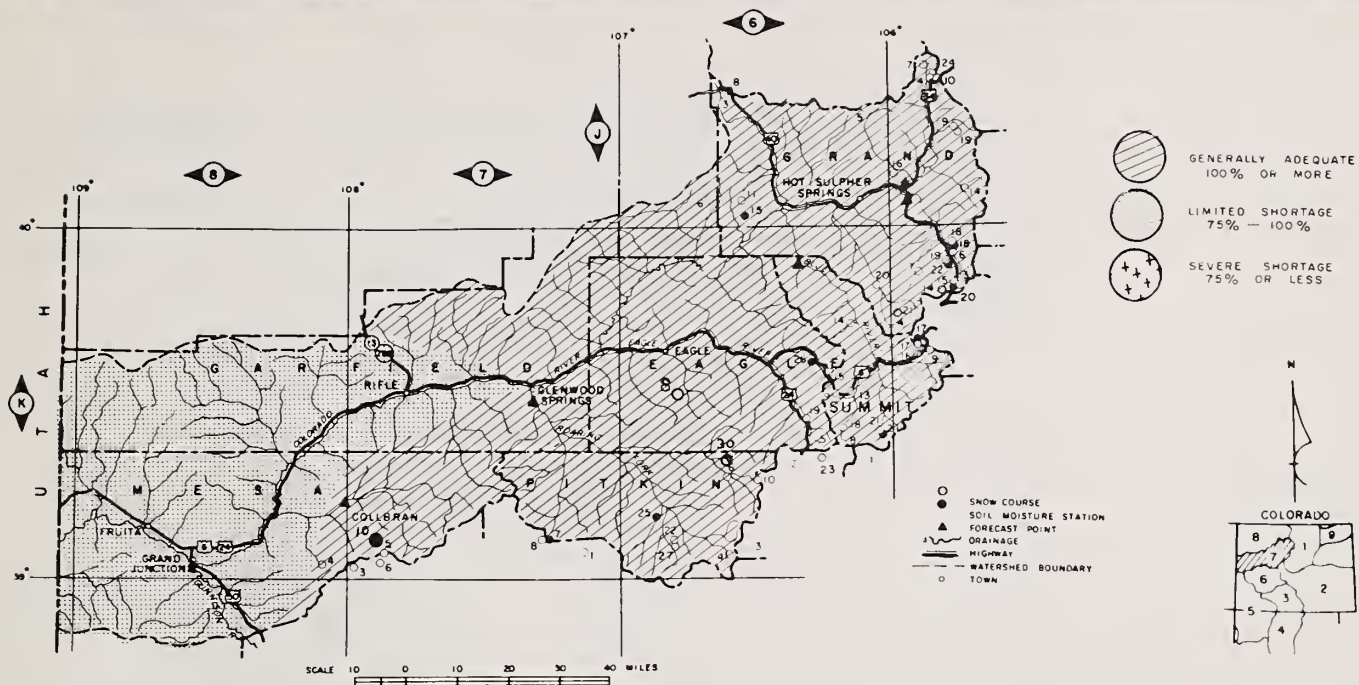
This Report Prepared by Jack N. Washichek and Donald W. McAndrew, Soil Conservation Service, Colorado State University, Fort Collins, Colo.

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WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
COLORADO RIVER WATERSHED IN COLORADO
as of
April 1, 1967

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



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Soil moisture conditions in the mountains is slightly better than last month and indicate that some melting has already occurred. Overall the soil moisture conditions are nearly normal.

The valley soil moisture is in good condition in the upper reaches of the Colorado, but become worse toward the west. The lower areas of the Colorado are reporting poor soil moisture.

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Forecasts are based on normal precipitation for the remainder of the year, so could change from time to time. Current forecasts indicate that water users should have near normal supplies this summer. The Colorado at Glenwood Springs should flow about 90% of normal. The Roaring Fork and Williams Fork about 85% and the Blue River about 80%.

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
Colorado

D. B. Beach, Area Conservationist,
Grand Junction, Colorado

R. L. Porter, Area Conservationist,
Glenwood Springs, Colorado

"THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY"

SNOW

Snow Course	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
				Last Year	Avg. 48-62
<u>Colorado River</u>					
Arrow	3/30	32	12.4	7.5	12.5
Berthoud Pass	3/30	43	14.3	9.8	15.7
Berthoud Summit	3/30	55	17.7	13.7	20.4*
Blue River	3/30	16	4.1	1.5	9.7*
Cooper Hill	3/28	37	7.9	6.5	- -
Fiddlers Gulch	3/31	46	11.6	6.6	17.9
Fremont Pass	3/31	51	16.0	9.7	17.7
Frisco	3/30	22	6.2	3.3	- -
Glen Mar Ranch	3/29	20	6.9	4.7	8.7
Gore Pass	3/30	30	8.6	4.3	10.9*
Granby	3/29	25	7.4	4.1	7.9*
Grand Lake	3/27	32	9.1	5.9	9.0*
Grizzly Peak	3/30	52	16.9	10.5	19.2
Hoosier Pass (B)	3/29	35	10.8	5.3	14.2
Jones Pass	3/29	43	14.6	9.5	15.3*
Lake Irene	3/25	61	18.9	10.9	23.7
Lapland	3/29	27	9.3	4.1	12.0
Lulu	3/30	61	18.5	10.6	18.2
Lynx Pass	3/30	39	12.3	6.9	13.0
McKinzie Gulch	3/27	9	2.2	3.4	- -
Middle Fork Campground	3/29	26	7.1	6.4	9.8
Milner	3/25	44	13.7	8.3	12.4*
Monarch Lake				3.8	11.0
North Inlet to Grand Lake	3/28	31	9.7	4.6	10.0
Pando	3/31	27	9.3	6.6	11.6*
Phantom Valley	3/25	38	12.4	5.6	11.5
Ranch Creek	3/30	32	8.0	5.6	9.8*
Shrine Pass	3/30	55	17.1	10.3	18.7
Snake River	3/30	18	4.9	2.4	9.2*
Summit Ranch	3/30	20	4.4	3.8	8.8*
Tennessee Pass	3/30	36	10.1	6.0	10.9
Vail Pass	3/30	48	14.9	7.5	19.2*
Vasquez Creek	3/30	40	12.5	7.8	13.4
Willow Creek Pass	3/28	45	15.3	8.4	14.3
<u>Roaring Fork River</u>					
Aspen	3/29	49	18.8	7.5	- -
Independence Pass Tunnel	3/29	44	15.3	11.5	18.7
Ivanhoe	3/30	57	19.2	12.0	18.8
Kiln	3/30	36	9.8	7.4	- -
Lift	3/29	50	19.3	12.9	18.8*
McClure Pass	3/26	41	13.9	10.4	16.4*
Nast	3/30	8	2.8	3.0	6.3
North Lost Trail	3/26	36	12.5	9.5	15.7
<u>Plateau Creek</u>					
Alexander Lake (B)	3/31	65	23.2	20.5	23.8
Mesa Lakes	3/29	46	16.6	14.3	18.5
Park Reservoir (B)	3/28	70	24.4	21.3	27.1
Trickle Divide	3/28	67	24.1	23.7	28.9

SOIL MOISTURE

Station	Date of Survey	Capacity (Inches)	This Year	Last Year	Avg. All Data
Berthoud Pass	3/28	3.9	2.7	3.4	2.5
Blue River	3/30	4.2	2.4	3.0	2.4
Gore	3/30	4.9	2.3	3.5	2.6
Grand Mesa	3/28	12.5	7.8	12.5	- -
Muddy Pass	3/30	11.1	6.2	7.7	6.4
Placita	4/3	9.3	8.6	8.1	6.3
Ranch Creek	3/30	8.7	5.2	5.9	5.2
Vail	3/31	12.3	6.0	8.0	8.4
Vasquez Siphon	3/29	11.0	5.8	7.5	7.3

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DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Snow Survey
Colorado State University
Fort Collins, Colorado

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RESERVOIR STORAGE (1,000 Acre-Feet)

Reservoir	Usable Capacity	This Year	Last Year	15 Year Average 1948-62
Granby	465.5	59.4	216.1	87.5
Green Mt.	146.9	47.0	63.4	58.9
Vega	32.9	7.5	21.8	- -
Williams Fork	96.8	3.1	13.6	- -
Dillon	254.0	210.7	243.6	- -

MEASURED FIRST OF MONTH

STREAMFLOW FORECAST (1,000 Acre-Feet)

Stream and Station	Forecast Period April - Sept.	This Year % of Avg.	Avg. 1948-1962
Blue River abv Green Mt. (10)	220	80	274
Colo. River nr Granby (11)	230	99	233
Colo. River abv Glenwood Springs (12)	1390	89	1556
Roaring Fork at Glenwood Springs (14)	650	85	762
Williams Fork nr Parshall (15)	65	84	77
Willow abv Willow Creek	45	94	48
Colo. nr Cameo (12)	2080	94	2213

- (10) Observed flow plus change in storage in Dillon Reservoir.
 (11) Observed flow diversions by Adams Tunnel and Grand River Ditch plus change in storage in Granby Reservoir.
 (12) Observed flow plus the changes as indicated in (11) plus Moffat Ditch.
 (14) Observed flow plus diversion through Twin Lakes Tunnel.
 (15) Observed flow plus diversions through Jones Pass Tunnel.

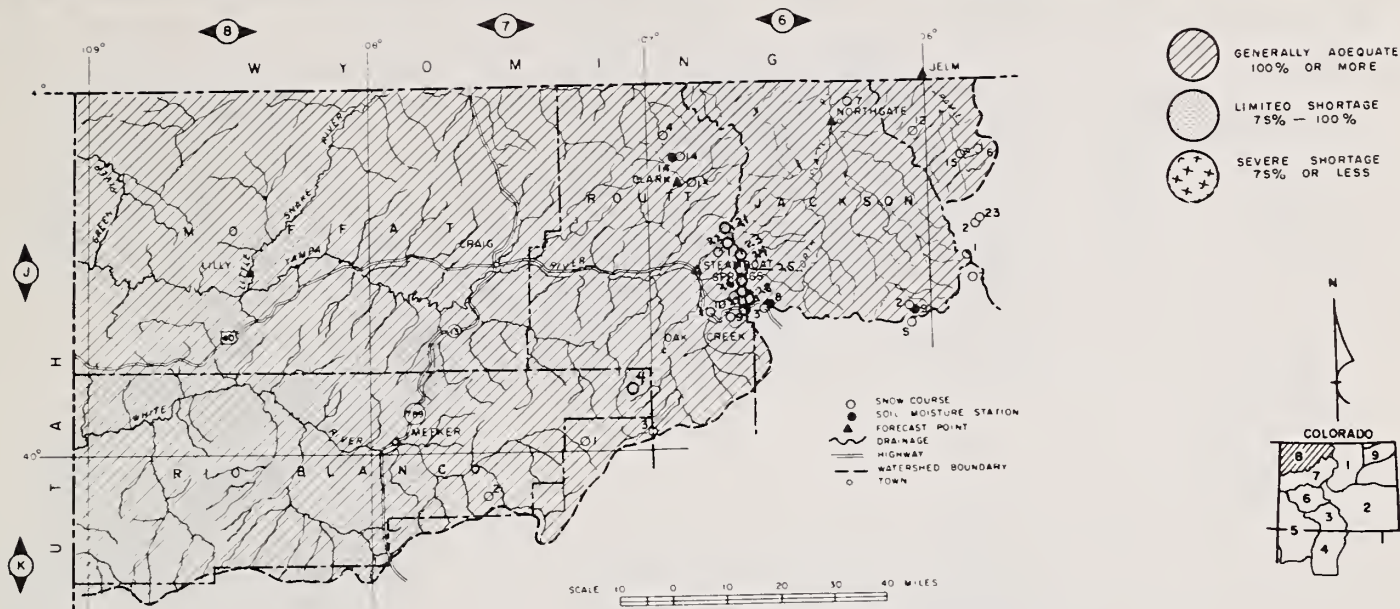
NOTE: * - 1948-62 (adjusted averages)
 NS - NO SURVEY
 (A) - AIR OBSERVED
 (B) - ON ADJACENT DRAINAGE

This Report Prepared by Jack N. Washichek and Donald W. McAndrew, Soil Conservation Service, Soil Conservation Service, Fort Collins, Colo.

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WATERSHED VIII
 WATER SUPPLY OUTLOOK
 FOR THE SOIL CONSERVATION DISTRICTS IN THE
YAMPA, WHITE, AND NORTH PLATTE
RIVERS WATERSHEDS IN COLORADO
 as of
 April 1, 1967

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
 COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



Snow pack on the North Platte is the best in the state and nearly normal. The Yampa Watershed fell off slightly from last month and now stands at 81% of the 15-year average. The White River snow pack fell off sharply and now stands at only 66% of normal.

This area experienced much above seasonal temperatures and some high winds. These two factors reduce the snow pack rapidly due to evaporation, especially at the lower elevations.

Soil moisture in the mountain areas is poor. This will tend to decrease the summer streamflow. Valley soils are reported to be in good condition following some precipitation.

Forecasts range from 78% of the 1948-62 average on the White to 93% of normal on the North Platte. There should be no serious water shortages this summer.

Forecasts are based on normal precipitation for the remainder of the year.

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
 Colorado

R. L. Porter, Area Conservationist,
 Glenwood Springs, Colorado

"THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY"

SNOW		CURRENT INFORMATION			PAST RECORD	
Snow Course		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
					Last Year	Avg. 48-62
<u>North Platte River</u>						
Cameron Pass		3/28	78	27.6	21.1	27.4
Columbine Lodge		3/30	60	22.5	13.9	25.5
Deadman Hill	(B)	NS			8.0	17.5
McIntyre	(B)	3/25	29	8.1	5.6	11.8*
Northgate		3/27	26	6.7	4.4	6.7*
Park View		3/28	31	9.9	5.6	10.1
Roach		3/25	54	16.4	13.0	20.2
Willow Creek Pass	(B)	3/28	45	15.3	8.4	14.3
<u>Yampa River</u>						
Bear River		3/28	31	9.8	5.7	11.5*
Clark		3/29	30	11.1	6.3	- -
Columbine Lodge	(B)	3/30	60	22.5	13.9	25.5
Dry Lake		3/30	51	18.3	12.2	21.7
Elk River		3/29	46	16.4	13.5	18.4
Hahn's Peak		3/29	36	13.4	9.5	- -
Lynx Pass	(B)	3/30	39	12.3	6.9	13.0
Rabbit Ears		3/30	57	21.0	19.1	31.0
Yampa View		3/30	29	10.5	9.2	15.9*
<u>White River</u>						
Burro Mountain		3/27	42	13.8	11.6	19.3
Rio Blanco		3/30	41	10.4	12.4	17.3

STREAMFLOW FORECAST (1,000 Acre-Feet)			
Stream and Station	Forecast	This	Avg. 1948-1962
	Period April - Sept.	Year % of Avg.	
Elk at Clark	190	93	205
Laramie at Jelm	112	100	112
Little Snake at Lilly	280	87	321
North Platte at Northgate	258	100	258
White at Meeker	260	78	332
Yampa at Maybell	820	89	923
Yampa at Steamboat Spr.	250	86	292

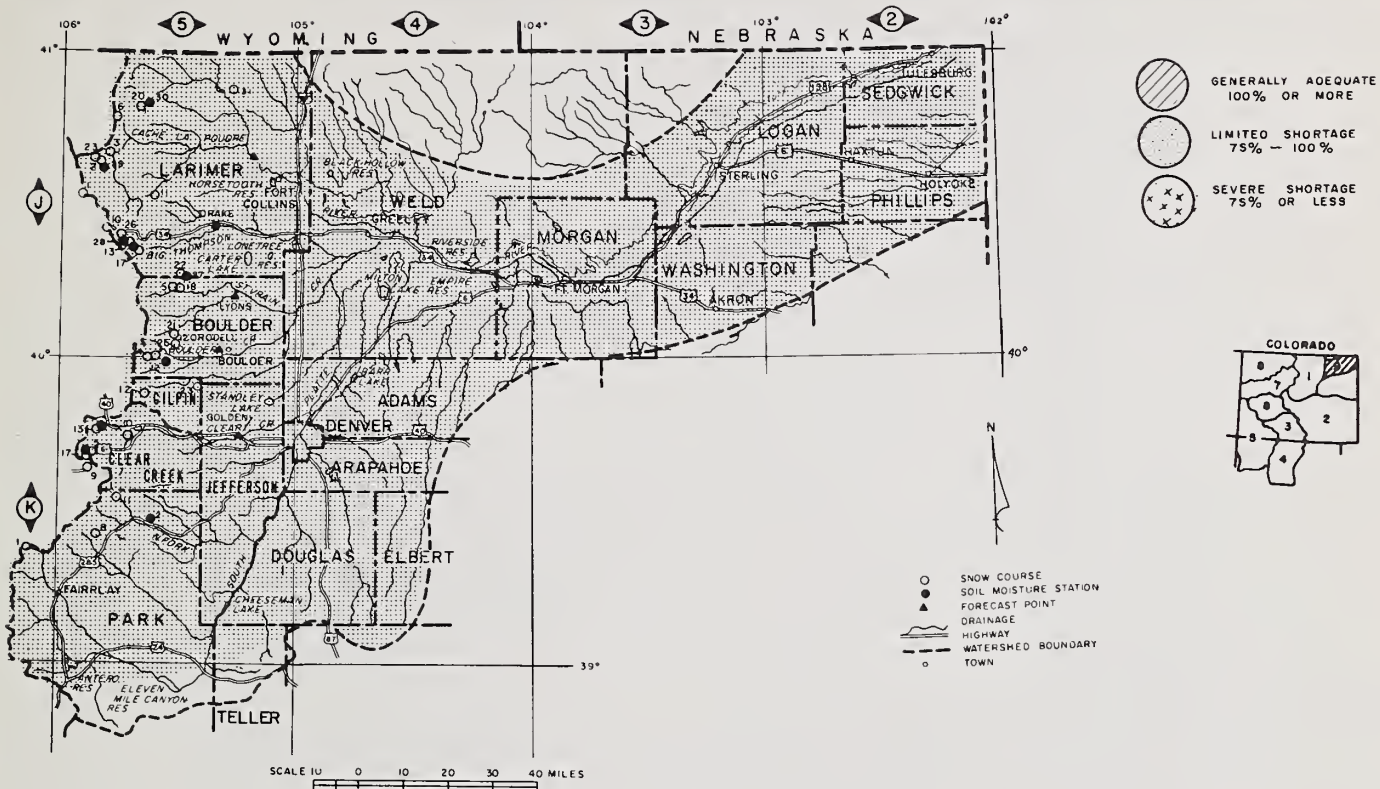
SOIL MOISTURE					
Station	Date of Survey	Capacity (Inches)	This Year	Last Year	Avg. All Data
Hahn's Peak	3/29	19.0	6.8	8.6	13.5
Laramie Road	4/1	12.4	6.4	8.7	6.7
Muddy Pass	3/30	11.1	6.2	7.7	6.4
Two Mile	3/20	9.1	3.9	4.1	5.0
Willow Pass	3/28	9.5	6.0	8.0	6.5

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WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO
as of
April 1, 1967

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



As of April 1st, the snow pack on the South Platte is only 75% of normal. The month was characterized by above seasonal temperatures and considerable wind. In many cases the snow pack decreased from last month. The lower elevation snow courses are generally much below normal, while the high courses held up a little better. Some of the snow pack now has a fine layer of dust visible, which will speed up the melting processes.

Carry-over storage is just about normal in this area. This storage will be of great benefit this summer in view of the anticipated deficient runoff.

Soil moisture in the mountain area is nearly normal for this time of year. Some of the snow melt will be used to replace the voids in the soil.

Most areas are reporting poor soil moisture conditions in the plains area, however, a few areas got some rainfall during the month and are in a little better condition.

Forecasts are based on normal precipitation for the remainder of the year. If current trends continue, forecasts could drop again next month. All forecasts on the South Platte are in the 70 to 80 range, which is not critical. The high for the area is the Clear at Golden with a forecast of 86% of normal. The low is the Big Thompson and Cache La Poudre with 73%.

The mainstem of the South Platte will probably flow considerably less than normal.

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
Colorado

J. L. Hall, Area Conservationist,
Sterling, Colorado

"THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY"

SNOW		CURRENT INFORMATION		PAST RECORD	
Snow Course	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
				Last Year	Avg. 48-62
South Platte River & Tributaries					
Baltimore	3/30	13	3.4	0.0	- -
Berthoud Falls	3/30	33	9.3	5.6	14.5*
Big South	4/1	1	0.5	0.0	2.9
Boulder Falls	3/29	30	10.0	6.0	15.1*
Cameron Pass	3/28	78	27.6	21.1	27.4
Chambers Lake	4/1	24	9.6	1.7	9.7
Copeland Lake	3/29	6	2.0	0.4	5.3*
Como	3/28	17	5.4	- -	- -
Deadman Hill	Est.	55	16.2	8.0	17.5
Deer Ridge	3/27	15	4.1	1.0	5.9*
Empire	3/30	22	7.7	2.6	8.1*
Geneva Park	3/30	12	3.0	0.5	4.1*
Grizzly Peak (B)	3/30	52	16.9	10.5	19.2
Hidden Valley	3/27	35	8.8	6.5	12.7
Hoosier Pass	3/29	35	10.8	5.3	14.2
Horseshoe	3/29	25	7.6	- -	- -
Hour Glass Lake	3/31	14	4.4	2.7	8.6
Jefferson Creek	3/28	27	7.8	3.0	10.4*
Lake Irene (B)	3/25	61	18.9	10.9	23.7
Long's Peak	4/2	33	11.1	5.5	12.5*
Lost Lake	4/1	32	12.1	4.6	13.0
Loveland Lift No. 1	3/31	69	23.5	15.7	- -
Loveland Pass	3/31	39	14.6	6.3	16.7
Mosquito	3/29	14	4.4	- -	- -
Pine Creek	3/29	1	0.2	0.2	- -
Red Feather	3/29	16	4.6	3.1	8.8*
Two Mile	3/27	52	13.6	9.5	16.4*
Trout Creek	3/29	9	2.6	- -	- -
University Camp	3/29	45	13.6	9.9	24.4
Ward	3/30	16	4.5	2.9	7.2*
Wild Basin	3/29	28	8.1	5.8	14.7

RESERVOIR STORAGE (1,000 Acre-Feet)

Reservoir	Usable Capacity	This Year	Last Year	15 Year Average 1948-62
Carter	108.9	89.5	107.7	74.2
Cheeseman	79.0	30.1	79.2	52.1
Eleven Mile	81.9	91.0	89.6	74.2
Empire	37.7	31.9	34.1	28.2
Horsetooth	143.5	103.5	112.9	77.7
Jackson	35.4	34.4	34.4	33.5
Julesburg	28.2	23.0	22.8	21.1
Point of Rocks	70.0	64.8	69.8	59.0
Prewitt	32.8	7.4	27.5	20.8
Riverside	57.5	57.5	54.3	49.0

MEASURED FIRST OF MONTH

STREAMFLOW FORECAST (1,000 Acre-Feet)

Stream and Station	Forecast Period	This Year	Avg. 1948-
	April - Sept.	% of Avg.	1962
Big Thompson at Drake (2)	80	73	110
Boulder at Orodell	45	83	54
Cache La Poudre at Canon Mouth (1)	180	73	246
Clear Creek at Golden (3)	115	86	134
Saint Vrain at Lyons	60	75	80

SOIL MOISTURE

Station	Date of Survey	Capacity (Inches)	This Year	Last Year	Avg. All Data
Alpine Camp	3/20	6.9	3.1	3.4	3.4
Beaver Dam	3/20	7.3	3.1	2.8	3.3
Clear Creek	3/31	9.5	5.1	5.4	5.0
Feather	3/20	10.1	3.7	4.0	4.1
Guard Station	4/2	6.9	5.2	3.9	3.4
Hoop Creek	3/31	4.9	3.0	3.4	2.5
Hoosier Pass	3/29	7.8	4.4	4.4	4.2
Kenosha Pass	3/28	4.4	2.7	2.3	2.0
Laramie Road	4/1	12.4	6.4	8.7	6.7
Two Mile	3/20	9.1	3.9	4.1	5.0

- Observed flow minus diversions from Michigan, Colorado and Laramie Rivers, plus diversions for irrigation and municipal use above station.
- Observed flow plus by-pass to power plants.
- Observed flow minus diversions through Jones Pass.

NOTE: * - 1948-62 (adjusted averages)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by Jack N. Washichek and Donald W. McAndrew, Soil Conservation Service, Colorado State University, Fort Collins, Colo.

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The following organizations cooperate in snow surveys for the Colorado, Platte, Arkansas and Rio Grande watersheds. Many other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

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New Mexico State Engineer
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Colorado Experiment Station
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Twin Lakes Reservoir and Canal Company
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